

## SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: \_\_\_\_\_ Examiner #: \_\_\_\_\_ Date: \_\_\_\_\_  
 Art Unit: \_\_\_\_\_ Phone Number 30 \_\_\_\_\_ Serial Number: \_\_\_\_\_  
 Mail Box and Bldg/Room Location: \_\_\_\_\_ Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

\*\*\*\*\*

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of invention: \_\_\_\_\_

Inventors (please provide full names): \_\_\_\_\_

Earliest Priority Filing Date: \_\_\_\_\_

*\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

## STAFF USE ONLY

## Type of Search

## Vendors and cost where applicable

Searcher: <u>am</u>	NA Sequence (#) _____	STN _____
Searcher Phone #: <u>22504</u>	AA Sequence (#) <input checked="" type="checkbox"/>	Dialog _____
Searcher Location: _____	Structure (#) _____	Questel/Orbit _____
Date Searcher Picked Up: <u>3/2/05</u>	Bibliographic _____	Dr. Link _____
Date Completed: <u>3/2/05</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep. Review Time: _____	Fulltext _____	Sequence Systems <input checked="" type="checkbox"/>
Clerical Prep. Time: <u>15</u>	Patent Family _____	WWW/Internet _____
Online Time: <u>20</u>	Other _____	Other (specify) _____



# **STIC Search Report**

## **Biotech-Chem Library**

**STIC Database Tracking Number: 146331**

**TO: Ilia Ouspenski**  
**Location: 3d74 / 3c70**  
**Wednesday, March 02, 2005**  
**Art Unit: 1644**  
**Phone: 272-2920**  
**Serial Number: 10 / 032214**

**From: Jan Delaval**  
**Location: Biotech-Chem Library**  
**Rem 1a51**  
**Phone: 272-2504**

**jan.delaval@uspto.gov**

### **Search Notes**

146331

**Delaval, Jan**

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**From:** Ouspenski, Ilia  
**Sent:** Tuesday, March 01, 2005 9:21 AM  
**To:** Delaval, Jan  
**Subject:** seq search for 10/032,214

Dear jan,

please search amino acid seq id no:278 for 10032214.

thanks,

ilia

ILIA OUSPENSKI, Ph.D.  
Examiner  
Art Unit 1644  
Phone:571-272-2920  
REM 3D74  
Mailstop 3c70

A/Status: preliminary; translated from GB/EMBL/DBJ  
 A/Molecule type: DNA  
 A/Residues: 1-309 <RES>  
 A/Cross-references: UNIPROT:Q00609; UNIPROT:O61332; GB:U2589; NID:9293299; PIDN:AAA3724  
 R/Freeman, G.J.; Gray, G.S.; Gamm, C.D.; Lombard, D.B.; Zhou, L.J.; White, M.; Fingerhut  
 J. Exp. Med. 174, 625-631, 1991  
 A/Title: Structure, expression, and T cell costimulatory activity of the murine homologue  
 A/Reference number: S17291; MUID:91341422; PMID:11749955  
 A/Accession: S17291  
 A/Molecule type: mRNA  
 A/Residues: 1-274, 'R', 279-309 <FRE>  
 A/Cross-references: EMBL:X60958; NID:950111; PIDN:CAA43291.1; PID:950112  
 R/Inoue, M.; Linaley, P.S.; Ledbetter, J.A.; Nagai, Y.; Tamakoshi, M.; Ueda, T.  
 Biochem. Biophys. Res. Commun. 200, 443-449, 1994  
 A/Title: Identification of an alternatively spliced form of the murine homologue of B7.  
 A/Reference number: 149521; MUID:94220123; PMID:7513163  
 A/Accession: 149521  
 A/Status: translated from GB/EMBL/DBJ  
 A/Molecule type: mRNA  
 A/Residues: 1-143, 238-274, 'R', 279-309 <RES>  
 A/Cross-references: GB:D16220; NID:9505118; PIDN:BA03748.1; PID:9994769  
 C/Genetics:  
 A/Gene: B7  
 A/Introns: 37/1; 143/1; 237/1; 275/1  
 C/Superfamily: B-lymphocyte restricted antigen B7  
 C/Keywords: alternative splicing

Query Match 38.2%; Score 587.5; DB 2; Length 309;  
 Best Local Similarity 45.1%; Pred. No. 5e-18;  
 Matches 125; Conservative 47; Mismatches 90; Indels 15; Gaps 7;

QY 14 CPYLNFFQLLVLAAGLSHFCGCV-IHTVKEVEVATLSCGHNVSELAQRIYQKEKCM 72  
 DB 18 CPPL-ILFPLRLRSLGVSSDVDEQLSKSYDKVTLRCRYNSPHEDESEIRIYQKEDKV 76  
 QY 73 VLTMGSGDNWPEYKRRITFDITNNLSIVIALRPSDEGYECVVLKYEKDAFKREHIA 132  
 DB 77 VLSVINGKLVWPEYKRRITFDITNNLSIVIALRPSDEGYECVVLKYEKDAFKREHIA 135  
 QY 133 EVTLISVADPPTPSISDFEIPITSNIRRIICSTSGGFPEPHLSWLENGBELNATVTSOD 192  
 DB 136 LVLTSLADPSTNITSGNPSADTKRITCPASGCFKPSWLENGBELNATVTSOD 195  
 QY 193 PEFTELAVSGKLDPMNTNHSFMCILIKYGHLYNQTNNMTKOEHPD--NLIPSAIT 250  
 DB 196 PEEELITISSQLDFNTNNTIKILIKYGDHVSSEDTWEKPEPD--PDSKNTLVLFAG 254  
 QY 251 LISVNGIFVLCCLTYCFAPRCRE-----RNERLR 281  
 DB 255 FGAIVTVVIVVILIKCF--CKHNLQSGCFRRNEASR 288

## RESULT 6

A48754  
 B7-2 antigen - human  
 N/Alternate names: B70 glycoprotein; CD86 antigen; CTLA-4 counter-receptor  
 C/Species: Homo sapiens (man)  
 C/Date: 10-Sep-1999 #sequence\_revision 10-Sep-1999 #text\_change 09-Jul-2004  
 R/Accession: A48754; S39055  
 R/Freeman, G.J.; Gribben, J.G.; Boussetts, V.A.; Ng, J.W.; Restivo Jr., V.A.; Lombard,  
 Science 262, 909-911, 1993  
 A/Title: Cloning of B7-2: a CTLA-4 counter-receptor that costimulates human T cell prolif  
 A/Reference number: A48754; MUID:94053735; PMID:7694363  
 A/Accession: A48754  
 A/Status: preliminary  
 A/Molecule type: mRNA  
 A/Residues: 1-329 <FRE>  
 A/Cross-references: UNIPROT:P42081; GB:U25259; NID:9416368; PIDN:AAA58389.1; PID:9416368  
 R/Note: It is uncertain whether Met-1 or Met-7 is the initiator.  
 R/Azuma, M.; Ito, D.; Yagita, H.; Okumura, K.; Phillips, J.H.; Lanier, L.L.; Sonoda, C.  
 Nature 366, 76-79, 1993  
 A/Title: B70 antigen is a second ligand for CTLA-4 and CD28.  
 A/Reference number: S39055; MUID:94050123; PMID:7694153

A/Accession: S39055  
 A/Status: preliminary  
 A/Molecule type: mRNA  
 A/Residues: 7-329 <NZU>  
 A/Cross-references: GB:U04343; NID:9439838; PIDN:AAB03814.1; PID:9439839  
 C/Genetics:  
 A/Gene: CD86; CD28LG2  
 A/Cross-references: GDB:433597; OMIM:601020  
 A/Map position: 3q13.3-q21  
 C/Superfamily: B7-2 antigen  
 C/Keywords: glycoprotein

Query Match 13.1%; Score 201.5; DB 1; Length 329;  
 Best Local Similarity 25.1%; Pred. No. 3.7e-08;  
 Matches 78; Conservative 57; Mismatches 109; Indels 67; Gaps 17;

QY 19 FFDLVLAGLSHFCGCVIHTVKEVEVATLSC-----GHNVSELAQRIYQKEKCM 74  
 DB 14 FVNAFLISG-----AAPLKIQAVFNETADLPQFANSQOSISELV---VFQDQENTLV 65  
 QY 75 TMM-----SGDMNIWPEYKRRITFDITNNLSIVIALRPSDEGYECVVLKYEKDAFKREH 130  
 DB 66 NEVYLKEKFDVSHSKYMGRTSFD--SDSWTLRLHNTQIKDKGLYQCIIHKKKPTGMIRH 124  
 QY 131 LAEVLISVADPPTPSISDFEIPITSNIR-----RIICSTSGGFPEP-HLSWLENGBELNA 184  
 DB 125 QNNSSELVLANFSQPEI---VPSINTENYINLTCCSITHGYEPKRSVL-----LRT 175  
 QY 185 INTTV-----SOPETELAVSGKLDP---NMTNHSFMCILIKYGHLYNQTNNMTN 232  
 DB 176 KSTIIVDGMCSQDMVTLEIVSISLSVSPDVTNNMTIFILETDKRLISSPSIE 235  
 QY 233 TTRQEHFPDNLPSWAITLISVNGIFVLCCLTYCF-----APR-----CRRR 275  
 DB 236 LEDPQPPDHI--PW---ITAVLPVITVIVWVCLILMKWKKKKRRNSYCGTNTWRE 290  
 QY 276 RNERL--RESV 285  
 DB 291 ESEQTKRREKI 301

## RESULT 7

UC7604  
 CD86 spliced variant CD86 deltaTM isoform - human  
 C/Species: Homo sapiens (man)  
 C/Date: 30-Jun-2001 #sequence\_revision 30-Jun-2001 #text\_change 18-Nov-2002  
 R/Accession: UC7604  
 R/Magistrelli, G.; Caron, G.; Gauchat, J.F.; Jeanin, P.; Bonnefoy, J.Y.; Delneste, Y.  
 Biochem. Biophys. Res. Commun. 280, 1211-1215, 2001  
 A/Title: Identification of an alternatively spliced variant of human CD86 mRNA.  
 A/Reference number: UC7604; MUID:21092744; PMID:11162656  
 A/Accession: UC7604  
 A/Molecule type: mRNA  
 A/Residues: 1-275 <NAG>  
 C/Comment: This CD86 variant expressed by activated human monocytes, is a costimulatory  
 C/Genetics:  
 A/Gene: cd86deltaTM  
 A/Superfamily: B-lymphocyte restricted antigen B7  
 C/Keywords: immune response

Query Match 12.1%; Score 186.5; DB 2; Length 275;  
 Best Local Similarity 26.0%; Pred. No. 4.3e-07;  
 Matches 68; Conservative 47; Mismatches 90; Indels 57; Gaps 13;

QY 19 FFDLVLAGLSHFCGCVIHTVKEVEVATLSC-----GHNVSELAQRIYQKEKCM 74  
 DB 8 FVNAFLISG-----AAPLKIQAVFNETADLPQFANSQOSISELV---VFQDQENTLV 59  
 QY 75 TMM-----SGDMNIWPEYKRRITFDITNNLSIVIALRPSDEGYECVVLKYEKDAFKREH 130  
 DB 60 NEVYLKEKFDVSHSKYMGRTSFD--SDSWTLRLHNTQIKDKGLYQCIIHKKKPTGMIRH 118  
 QY 131 LAEVLISVADPPTPSISDFEIPITSNIR-----RIICSTSGGFPEP-HLSWLENGBELNA 184